

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression, wherein the method comprises:

01
performing at least two routing calculations for a maximum number of links using signal compression, said routing calculations comprising a first routing calculation for a number of links using signal compression that is less than said maximum number, and a second routing calculation for said maximum number of links using signal compression using information obtained from the first routing calculation, and

selecting a route between said source node and said destination node based on results from said routing calculations.

2. (*Previously Presented*) The method according to claim 1, wherein the method further comprises choosing a cost function and wherein the routing calculations minimize the cost function.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

3. (*Currently Amended*) The method according to claim 1, wherein a routing calculation comprises, at a node where the number of links using signal compression from the source node is equal to the maximum number, seeking and saving ~~for a subsequent routing calculation~~ adjacent links on which signal compression is used for a subsequent routing calculation.

4. (*Currently Amended*) The method according to claim 1, wherein a routing calculation for a given number of links that use signal compression ~~compressions~~ uses the Dijkstra algorithm and verifies the number of links using signal compression ~~compressions~~ when adding a node to the route.

5. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression and the network further comprises overflow links to an external network, wherein the method comprises:

performing at least two routing calculations for a maximum number of links using signal compression, said routing calculations comprising a first routing calculation for a number of links using signal compression that is less than said maximum number, and a second routing calculation for said maximum number of links using signal compression using information obtained from the first routing calculation. ~~The method according to claim 1, wherein the network further comprises overflow links to an external network, said method further comprises performing at least two overflow routing calculations for a maximum number of overflow~~

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

links overflows and for the maximum number of links using signal compression ~~one compression~~,
said overflow routing calculations comprising a first overflow routing calculation for a number
of overflows less than said maximum number of overflow links overflows, and a second overflow
routing calculation for a the maximum number of overflow links overflows and the maximum
number of links using signal compression using information obtained from said first overflow
routing calculation, and

selecting a route between said source node and said destination node based on results
from said routing calculations.

D/C
6. (*Currently Amended*) The method according to claim 5, wherein the method further
comprises choosing a cost function representative of the cost of the overflow links overflows and
wherein the routing calculations minimize the cost function.

7. (*Currently Amended*) The method according to claim 5, wherein the routing
calculations are effected for a given number of overflow links overflows by varying the number
of links using signal compression and then by varying the number of overflow links overflows.

8. (*Previously Presented*) The method according to claim 6, wherein the cost function
accounts for occupancy of resources in the network.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

9. (*Currently Amended*) The method according to claim 8, wherein the cost function accounts for charges incurred because of the overflow link~~s overflows~~.

10. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression, wherein the method comprises:

performing a first routing calculation with links that do not use signal compression;
performing a second routing calculation for a number of links using signal compression that is less than a maximum number of signal compressions; and
performing a third routing calculation for the maximum number of links using signal compression compressions using information obtained from the first and second routing calculations, and
selecting a route between said source node and said destination node based on results from said routing calculations.

11. (*Previously Presented*) The method according to claim 10, wherein the method further comprises choosing a cost function and wherein the routing calculations minimize the cost function.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

12. (*Currently Amended*) The method according to claim 10, wherein a routing calculation for a given number of links using signal compression ~~compressions~~ comprises, at a node where the number of links using signal compression from the source node is equal to the maximum number, seeking and saving ~~for a subsequent routing calculation~~ adjacent links on which signal compression is used for a subsequent routing calculation.

13. (*Currently Amended*) The method according to claim 10, wherein a routing calculation for a given number of links using signal compression ~~compressions~~ uses the Dijkstra algorithm and verifies the number of links using signal compression ~~compressions~~ when adding a node to the route.

14. (*Currently Amended*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein at least one link uses signal compression and the remaining links do not use signal compression and the network further comprises overflow links to an external network, wherein the method comprises:
performing a first routing calculation with links that do not use signal compression;
performing a second routing calculation for a number of links using signal compression that is less than a maximum number of signal compressions;
performing a third routing calculation for the maximum number of links using signal compression compressions using information obtained from the first and second routing

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO. 09/364,308
ATTORNEY DOCKET NO. Q55268

calculation; The method according to claim 10, wherein the network further comprises overflow links to an external network, said method further comprises:

a fourth routing calculation for a number of overflow links overflows less than a maximum number of overflow linkseoverflows; and

a fifth routing calculation for the maximum number of overflow links overflows and the maximum number of links using signal compression using information obtained from said fourth routing calculation, and

selecting a route between said source node and said destination node based on results from said routing calculations.

15. (*Currently Amended*) The method according to claim 14, wherein the method further comprises choosing a cost function representative of the cost of the overflow links overflows and wherein the routing calculations minimize the cost function.

16. (*Currently Amended*) The method according to claim 14, wherein the routing calculations are effected for a given number of overflow links overflows by varying the number of links using signal compression and then by varying the number of overflow linkseoverflows.